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ABSTRACT

This annotated bibliography identifies over 140 books, essays, and newsletters which are concerned with the convergence of the sciences with parapsychology. Most entries were published since 1950 although some date back to the early 1900s. Entries are presented alphabetically by author within four categories: psychological-metaphysical critiques of science; theories of consciousness; frontiers of physics; and biology as morphic science. This latter category identifies studies which suggest a purposive, holistic view of nature. It is further categorized by general works, works about brain/mind, evolution, form and nature, and systems. (RC)

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SCIENCE AND PARASCIENCE:
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SCIENCE AND PARASCIENCE:

A Select Bibliography

The title and idea for this bibliography came from an address by Arthur Koestler delivered to the Annual Convention of the Parapsychological Association in Edinburgh in 1972. In his speech, Koestler discusses some of the fundamental concepts of twentieth century physics (quantum theory, Heisenberg's principle of indeterminacy, the principle of complementarity) and seeks to relate them to notions of purpose, pattern, and form in nature, self-regulation of the organism, and the increasing importance of the study of consciousness.

These developments, he contends, point to a convergence or rapprochement with the most recent work of the parapsychologists in documenting speculations about the universe as mind. Thus, physics comes to "dematerialize matter," as Koestler puts it, and ". . . the unthinkable phenomena of parapsychology appear somewhat less preposterous in the light of the unthinkable propositions of modern quantum physics."

This bibliography is an attempt to delineate that rapprochement, and though of necessity highly selective and personal, seeks to suggest some the links and continuities in the literature of these apparently divergent disciplines.

I. PSYCHOLOGICAL-METAPHYSICAL CRITIQUES OF SCIENCE

It has become by now almost a truism that the observer affects the object observed, and that the total world-picture of observer/observee must be considered. This erosion of the rock of scientific objectivity and its mechanistic assumptions has been the subject of numerous studies. Those included here are the most widely disseminated and influential.

Barbour, Ian G. MYTHS, MODELS AND PARADIGMS: A COMPARATIVE STUDY IN SCIENCE AND RELIGION. New York: Harper & Row, 1974.
Recent thought in philosophy of science and implications for the philosophy of religion.

Barfield, Owen. "The coming trauma of materialism" in: THE REDISCOVERY OF MEANING, AND OTHER ESSAYS. Middletown, Conn.: Wesleyan University Press, 1977.
Discussion of Roszak's WHERE THE WASTELAND ENDS; of the growing impact of parascientific thought, and the dangers inherent therein.

Blackburn, Thomas R. "Sensuous-intellectual complementarity in science" in SCIENCE, vol. 172, June 4, 1971, pp. 1003-1007.
Posits an alternative to quantitative, reductionist science through direct sensuous experience: search for a science of wholeness.

Bohm, David. "Fragmentation in science and society" in IMPACT OF SCIENCE ON SOCIETY, vol. 20, no. 2, 1970, pp. 159-169.
The antidote to fragmentation is wholeness; Bohm proposes a new terminology to help us think in wholes rather than fragments.

Brown, G. Spencer. ONLY TWO CAN PLAY THIS GAME. New York: Julian Press, 1972.
"If, like me, you were brought up in a western culture, with the doctrine that everything has a scientific explanation, there will be certain ideas you will not be allowed to know."

Burtt, Edwin Arthur. THE METAPHYSICAL FOUNDATIONS OF MODERN PHYSICAL SCIENCE; A HISTORICAL AND CRITICAL ESSAY. New York: Humanities Press, 1927.
Questions the assumptions of objectivity.

Guénon, René. THE REIGN OF QUANTITY AND SIGNS OF THE TIMES. Baltimore: Penguin Books, 1972.
A searing critique of modern scientism, originally published in 1945.

Hanson, Norwood R. PATTERNS OF DISCOVERY. Cambridge: Cambridge University Press, 1958.
There are no neutral facts; all data are "theory-laden."

Harris, Errol E. THE FOUNDATIONS OF METAPHYSICS IN SCIENCE. London: Allen & Unwin, 1965.
Questions orthodoxies of evolutionary theory; sees in evolution a striving toward wholeness.

Holton, Gerald, ed. "Do life processes transcend physics and chemistry?" in ZYGON: JOURNAL OF RELIGION AND SCIENCE, December 1968.
Anti-reductionist statements by Polanyi, Platt, Commoner, etc.

Koestler, Arthur and J. R. Smythies, eds. BEYOND REDUCTIONISM: NEW PERSPECTIVES IN THE LIFE SCIENCES: The Alpbach Syposium. New York: Macmillan, 1970.
Papers by von Bertalanffy, Koestler, Piaget, C. H. Waddington, Viktor Frankl, critical of scientific orthodoxy and its mechanistic presuppositions.

Kuhn, Thomas. THE STRUCTURE OF SCIENTIFIC REVOLUTIONS. Chicago: University of Chicago Press, 1962.
Introduced the highly influential idea of "paradigm shifts" in the sciences, opening up the possibility of sharp discontinuities in approaching and defining scientific problems.

Lewis, John, ed. BEYOND CHANCE AND NECESSITY: A CRITICAL INQUIRY INTO PROFESSOR JACQUES MONOD'S CHANCE AND NECESSITY. London: Teilhard Centre for the Future of Man, 1974.
Contributions by David Bohm, Koestler, Th. Dobzhansky, Joseph Needham, C. H. Waddington, and others.

Maslow, Abraham. THE PSYCHOLOGY OF SCIENCE. New York: Harper & Row, 1966.
Pioneering work considering how scientists think.

Mumford, Lewis. THE MYTH OF THE MACHINE; TECHNICS AND HUMAN DEVELOPMENT. New York: Harcourt, Brace and Jovanovich, 1967.
PENTAGON OF POWER. New York: Harcourt, Brace and Jovanovich, 1970.
All of Mumford's work has been an ongoing critique of the misapplications of science and technology with a strong undercurrent of hope for an emergent, organic worldview.

Nasr, Seyyed Hossein. THE ENCOUNTER OF MAN AND NATURE. London: Allen & Unwin, 1968.
Profound critique of the crisis of the scientific age by a leading Sufi philosopher of science.

Needham, Joseph. THE GRAND TITRATION; SCIENCE AND SOCIETY IN EAST AND WEST. London: Allen & Unwin, 1969.
Analysis of Chinese thought as basically organicist; influence of Taoism on development of Chinese science.

Needham, Joseph. SCIENCE AND CIVILIZATION IN CHINA. Cambridge: Cambridge University Press, 1954-1971 (5 vols.).
Shows how Buddhism and Taoism have helped develop a Chinese science cognizant of moral and spiritual values, in contrast to Western "value-free" science. See also his "History and human values: a Chinese perspective for world science and techonology," CENTENNIAL REVIEW, vol. 20, no. 1, Winter 1976, pp. 1-35.

Needleman, Jacob. A SENSE OF THE COSMOS; THE ENCOUNTER OF MODERN SCIENCE AND ANCIENT TRUTH. Garden City, N.Y.: Doubleday, 1975.
Reflections on the relation of "ancient truth" to conceptions of the universe, medicine, biology, physics, psychotherapy and magic, with suggestions about the deficiency of the scientific paradigm to deal meaningfully with these subjects.

Polanyi, Michael. PERSONAL KNOWLEDGE; TOWARD A POST-CRITICAL PHILOSOPHY. Chicago: University of Chicago Press, 1958.
Along with Kuhn, greatly influential in its questioning the assumptions of objectivity implicit in scientific method; "the purpose of this book is to show that complete objectivity is a delusion and . . . a false ideal." His substitute: personal knowledge.

Polanyi, Michael. THE TACIT DIMENSION. Garden City, N.Y.: Doubleday, 1966.
Excellent summary and further discussion of "personal knowledge."

Poole, Roger. TOWARDS DEEP SUBJECTIVITY. London: Penguin Books, 1972.
English structuralist's critical approach to the pursuit of objectivity propagated by scientific method.

Roszak, Theodore. WHERE THE WASTELAND ENDS; POLITICS AND TRANSCENDENCE IN POST-INDUSTRIAL SOCIETY. Garden City, N.Y.: Doubleday, 1972.
A critique of scientific "single vision" (drawn from Blake), and a plea for a new science based on "rhapsodic intellect."

Siu, G. H. THE TAO OF SCIENCE, Cambridge, Mass.: Massachusetts Institute of Technology Press, 1957.
Attempts a reconciliation of Western scientific thought with Taoist modes.

II. THEORIES OF CONSCIOUSNESS

If in the first half of the twentieth century the major discovery of psychology was the importance of the unconscious, in this latter half many are coming to realize the fundamental importance of consciousness itself. The works included here deal with parapsychological research as well as other explorations of the unknown or ignored potentialities of mind.

Barfield, Owen. SAVING THE APPEARANCES; A STUDY IN IDOLATRY. New York: Harcourt, Brace and World, 1965.
This student of Rudolf Steiner brilliantly challenges the scientific conception of nature and advances Steiner's thesis of the evolution of consciousness.

Bentov, Itzhak. STALKING THE WILD PENDULUM; ON THE MECHANICS OF CONSCIOUSNESS. New York: Dutton, 1977.
Kundalini energy and parascience.

Bowles, Norma and Fran Hynds. PSI SEARCH; THE NEW INVESTIGATION OF PSYCHIC PHENOMENA THAT SEPARATES FACT FROM SPECULATION. San Francisco: Harper & Row, 1978.
Includes appendices on centers of parapsychological research in the U.S. and major English language publications in parapsychology.

Brown, Barbara. NEW MIND, NEW BODY: BIOFEEDBACK. New York: Harper & Row, 1974.
Voluntary self-regulation.

Davy, Charles. TOWARDS A THIRD CULTURE. London: Faber, 1961.
Evolution of consciousness and the development of modern science, by a student of anthroposophy, the school of Rudolf Steiner.

Foster, David. THE INTELLIGENT UNIVERSE. London: Abelard, 1975.
Theory of universe as mind, propounded by British cybernetician with Gurdjieff training. Preface by Colin Wilson.

Green, Elmer and Alyce Green. BEYOND BIOFEEDBACK. New York: Delacorte Press, 1977.
Voluntary self-regulation, states of consciousness and their relation to Eastern practice of yoga and meditation.

Holroyd, Stuart. PSI AND THE CONSCIOUSNESS EXPLOSION. New York: Taplinger, 1977.
Convergence of "psi" research on "non-ordinary states of consciousness" with the counterculture; the anomalous position it occupies among the sciences.

Jaynes, Julian. THE ORIGINS OF CONSCIOUSNESS IN THE BREAKDOWN OF THE BICAMERAL MIND. New York: Houghton-Mifflin, 1977.
Highly controversial thesis of development of consciousness from prehistoric times to the modern mind, incorporating split-brain theory; gods as voices in the head generated by right hemisphere of brain.

Jung, Carl Gustav. SYNCHRONICITY; AN ACAUSAL CONNECTING PRINCIPLE. London: Routledge and Kegan Paul, 1972.
First published as Part I of THE INTERPRETATION OF NATURE AND THE PSYCHE

with Wolfgang Pauli in 1955, Jung's concept of "synchronicity" has become a by-word for parapsychologists; study of "meaningful coincidences."

Koestler, Arthur. THE ROOTS OF COINCIDENCE. New York: Random House, 1972.
ESP and synchronicity.

Koestler, Arthur. "Science and para-science" in THE HEEL OF ACHILLES. New York: Random House, 1975.

LeShan, Lawrence. ALTERNATE REALITIES; THE SEARCH FOR THE FULL HUMAN BEING. New York: Evans, 1976.
Exploration of modes of reality and implications for understanding the paranormal.

LeShan, Lawrence. TOWARD A GENERAL THEORY OF THE PARANORMAL. New York: Parapsychology Foundation, Inc., 1969.
Relates the paranormal to theories of physics.

Mishlove, Jeffrey. THE ROOTS OF CONSCIOUSNESS; PSYCHIC LIBERATION THROUGH HISTORY, SCIENCE AND EXPERIENCE. New York: Random House, 1975.
Consciousness and parapsychology.

Musès, Charles and Arthur M. Young, eds. CONSCIOUSNESS AND REALITY; THE HUMAN PIVOT POINT. New York: Discus Books, 1974.
Anthology on consciousness.

Nicholas, Jack Wefmore. PSIENCE: A GENERAL THEORY OF EXISTENCE. Santa Barbara, California: Ross-Erikson, 1977.
Consciousness and psychical research.

Ornstein, Robert E., ed. THE NATURE OF HUMAN CONSCIOUSNESS. New York: Viking Press, 1973.
Contributors include Charles Tart, Arthur Deikman, Polanyi, Aldous Huxley, Lama Govinda, Idries Shah.

Ornstein, Robert E. THE PSYCHOLOGY OF CONSCIOUSNESS. San Francisco, Freeman, 1972.

Ostrander, Sheila and Lynn Schroeder. PSYCHIC DISCOVERIES BEHIND THE IRON CURTAIN. Englewood Cliffs, N.J.: Prentice-Hall, 1970.
Russian psychical research and its applications.

Pelletier, Kenneth R. CONSCIOUSNESS; EAST AND WEST. New York: Harper & Row, 1976.
Approaches to consciousness.

Sannella, Lee. KUNDALINI--PSYCHOSIS OR TRANSCENDENCE? San Francisco: Lee Sannella, 1976.
Case histories of kundalini experience and discussion of the physiological effects of kundalini, by a clinician practicing in the San Francisco Bay Area.

Slater, Philip. THE WAYWARD GATE; SCIENCE AND THE SUPERNATURAL. Boston: Beacon Press, 1977.
"Science incorporates what it can while the rest of the new information lies about in scattered heaps."

Tart, Charles, ed. ALTERED STATES OF CONSCIOUSNESS. New York: Wiley, 1969.
Essays and articles on consciousness.

Tart, Charles. STATES OF CONSCIOUSNESS. New York: Dutton, 1975.
A systems approach to consciousness.

Tart, Charles. LEARNING TO USE EXTRASENSORY PERCEPTION. Chicago: University of Chicago Press, 1976.

Tart, Charles. ed. TRANSPERSONAL PSYCHOLOGIES. New York: Harper & Row, 1975.
Articles on states of consciousness by Tart; meditation by D. Goleman; Gurdjieff by Kathleen Spaeth; Arica by John Lilly; contemporary Sufism by R. Ornstein.

Tompkins, Peter and Christopher Byrd. THE SECRET LIFE OF PLANTS. New York: Harper & Row, 1973.
Studies of plant consciousness.

Vasiliev, Leonid. EXPERIMENTS IN DISTANT INFLUENCE. New York: Dutton, 1976.
Russian research in psychic influence.

Weil, Andrew T. THE NATURAL MIND: A NEW WAY OF LOOKING AT DRUGS AND THE HIGHER CONSCIOUSNESS. Boston: Houghtlon Mifflin, 1972.

White, John W., comp. FRONTIERS OF CONSCIOUSNESS: THE MEETING GROUND BETWEEN INNER AND OUTER REALITY. New York: Julian Press, 1974.
Articles on biofeedback, transpersonal psychology, meditation research, plant energy fields, biotechnology, and ecological consciousness.

White, John, ed. THE HIGHEST STATE OF CONSCIOUSNESS. Garden City, New York: Doubleday, 1972.
Selections from Aldous Huxley, R. D. Laing, Alan Watts, Lama Govinda, Charles Tart, etc.

Whyte, Lancelot Law. THE NEXT DEVELOPMENT IN MAN. New York: New American Library, 1950.
The dissociation of European mind and the coming of unitary consciousness.

Wilber, Ken. THE SPECTRUM OF CONSCIOUSNESS. Wheaton, Il.: Theosophical Publishing Co., 1977.
Knowledge and consciousness.

Young, Arthur M. THE REFLEXIVE UNIVERSE: EVOLUTION OF CONSCIOUSNESS. New York: Delacorte Press, 1976.
Explores the "common ground between esoteric thought and modern science."

Zinberg, Norman Earl, ed. ALTERNATE STATES OF CONSCIOUSNESS. New York: Free Press, 1977.
Conference papers by Charles Tart, Karl Pribram, Arthur Deikman, etc., on various aspects of consciousness.

III. FRONTIERS OF PHYSICS

"Today there is a wide measure of agreement, which on the physical side of science approaches almost to unanimity, that the stream of knowledge is heading towards a non-mechanical reality; the universe begins to look more like a great thought than a great machine." (Sir James Jeans, THE MYSTERIOUS UNIVERSE, Cambridge University Press, 1937.)

Ault, Donald. VISIONARY PHYSICS: BLAKE'S RESPONSE TO NEWTON. Chicago: University of Chicago Press, 1974.
Science as system and metaphor.

Bohm, David. CAUSALITY AND CHANCE IN MODERN PHYSICS. New York: Harper, 1961.

Čapek, Milič. THE PHILOSOPHICAL IMPACT OF CONTEMPORARY PHYSICS. Princeton, N.J.: Van Nostrand, 1961.

Capra, Fritjof. THE TAO OF PHYSICS: AN EXPLORATION OF THE PARALLELS BETWEEN MODERN PHYSICS AND EASTERN MYSTICISM. Berkeley: Shambhala Press, 1975.

Heisenberg, Werner. ACROSS THE FRONTIERS. New York: Harper & Row, 1974. (World Perspectives, vol. 48.)
Physics and philosophy.

Heisenberg, Werner. THE PHYSICIST'S CONCEPTION OF NATURE. New York: Harcourt Brace, 1958.

Heisenberg, Werner. PHYSICS AND PHILOSOPHY; THE REVOLUTION IN MODERN SCIENCE. New York: Harper & Row, 1958.
Implications of his "principle of indeterminacy" and how the act of observing alters the object being observed; sees a restoration of the concept of "potentiality."

Lehrs, Ernst. MAN OR MATTER; INTRODUCTION TO A SPIRITUAL UNDERSTANDING OF NATURE ON THE BASIS OF GOETHE'S METHOD OF TRAINING OBSERVATION AND THOUGHT. 2nd rev. ed. London: Faber, 1958.
Goethean physics.

Margenau, Henry. THE NATURE OF PHYSICAL REALITY. New York: McGraw-Hill, 1950.
Predominant role of subject in scientific knowledge.

Mehra, J. THE PHYSICIST'S CONCEPTION OF NATURE. Amsterdam: Reidel, 1974.
The laws of physics can be influenced by observer's consciousness.

Ovenden, Michael. "Intimations of Unity" in SCIENCE AND SOCIETY, N. Steneck, ed., Ann Arbor: University of Michigan Press, 1975.
A noted astronomer speculates on the philosophical implications of his work.

Schlegel, Richard. "Quantum Physics and Human Purpose" in ZYGON, vol. 8, nos. 3 & 4 (Sept.-Dec. 1973), pp. 200-220.
Recent work in physics emphasizes a new subjectivism, the dependence on the observer, and the interaction of the observer and the observed.

Schrodinger, Erwin. WHAT IS LIFE? AND MIND AND MATTER. London: Cambridge University Press, 1969.
Physicist muses on philosophy of life.

Schwenk, Theodor. SENSITIVE CHAOS; THE CREATION OF FLOWING FORMS IN WATER AND AIR. New York: Schocken, 1976.
Phenomenological study of water in all its aspects, with many photographs of the forms water takes and makes; by a student of Rudolf Steiner.

Sciama, D. W. THE UNITY OF THE UNIVERSE. London: Faber, 1959.

White, John and Stanley Krippner, eds. FUTURE SCIENCE: LIFE ENERGIES AND THE PHYSICS OF PARANORMAL PHENOMENA. Garden City, N.Y.: Doubleday, 1977.
Articles on the latest theories and discoveries in the field of paranormal research; including a section "From Physics to Metaphysics."

Yukawa, Hideki. CREATIVITY AND INTUITION; A PHYSICIST LOOKS AT EAST AND WEST. New York: Harper & Row, 1973.

IV. BIOLOGY AS MORPHIC SCIENCE

These studies deal with the ideas of systematic integration, hierarchical process and the formative tendencies of life--all of which suggest a purposive, holistic view of nature.

A. General

Arber, Agnes. THE MIND AND THE EYE; A STUDY OF THE BIOLOGISTS' STANDPOINT. Cambridge: Cambridge University Press, 1954.

Ayala, Francis and Theodosius Dobzhansky, eds. STUDIES IN THE PHILOSOPHY OF BIOLOGY. Berkeley: University of California Press, 1974.
Papers in this volume stress the importance of seeing organisms as "systems in which emergent properties" occur.

Barfield, Owen. "Science and quality" in THE REDISCOVERY OF MEANING AND OTHER ESSAYS. Middletown, Conn.: Wesleyan University Press, 1977.
Need for a different way of apprehending qualities in nature based on Goethe and Steiner.

Bateson, Gregory. STEPS TO AN ECOLOGY OF MIND. New York: Ballantine Books, 1972.
Various essays with emphasis on process and the integration of disparate fields.

Bertalanffy, Ludwig von. ROBOTS, MEN AND MINDS: PSYCHOLOGY IN THE MODERN WORLD. New York: Braziller, 1967.
A philosophy of the organism, by the noted systems analyst.

Bleibtrau, John N. THE PARABLE OF THE BEAST. New York: Macmillan, 1968.
The inner world of animal behavior, and gleaning therefrom parables for understanding human behavior; in the tradition of Portmann and von Uexküll.

Brown, F. A., et al. THE BIOLOGICAL CLOCK . . . TWO VIEWS. New York: Academic Press, 1970.
Bio-rhythms and astronomical cycles.

Cannon, Walter B. THE WISDOM OF THE BODY. New York: Norton, 1939.
Self-regulation of the organism.

Colquhoun, W. P. BIOLOGICAL RHYTHMS AND HUMAN PERFORMANCE. New York: Academic Press, 1971.

Dubos, René. THE TORCH OF LIFE; CONTINUITY IN LIVING EXPERIENCE. New York: Simon & Schuster, 1962.
Mind is "manifest in all living things"; the basic principle of biological organization is the interdependence of the parts of a living system.

Gauquelin, Michel. THE COSMIC CLOCKS. Chicago: Regnery, 1967.
Biorhythm: "the continuous response of the living organism to its rhythmical geophysical environment."

Gauquelin, Michel. THE SCIENTIFIC BASIS OF ASTROLOGY. New York: Stein & Day, 1969.
Scientific study of astrological correlations.

Goldstein, Kurt. THE ORGANISM. New York: American Book Company, 1939.
The neurologist's pioneer work on the organism as a gestalt.

Grant-Watson, E. L. THE MYSTERY OF PHYSICAL LIFE. New York: Abelard-Schuman, 1964.
The wisdom and forms of nature.

Grene, Marjorie. APPROACHES TO A PHILOSOPHICAL BIOLOGY. New York: Basic Books, 1968.
Discussion of the organicist biologists, including Goldstein and Portmann.

Inglis, Brian. THE CASE FOR UNORTHODOX MEDICINE. New York: Putnam, 1969.
New forms of healing.

Koestler, Arthur. THE GHOST IN THE MACHINE. New York: Macmillan, 1967.
Concept of hierarchy in organism.

Koffka, Kurt. PRINCIPLES OF GESTALT PSYCHOLOGY. New York: Harcourt Brace, 1935.
Early proponent of the holistic approach to behavior.

Luce, Gay Gaer. BIOLOGICAL RHYTHMS IN HUMAN AND ANIMAL PHYSIOLOGY. New York: Dover, 1971.
Influential summary of research on biorhythm.

Maslow, Abraham. THE FARTHER REACHES OF HUMAN NATURE. New York: Viking, 1971.
By the founder of humanistic psychology.

Osmundsen, John and Jerome Agel. UNDERSTANDING UNDERSTANDING. New York: Harper & Row, 1974.
Differing perceptions in human psychology; the "umwelt" or total world considered.

Portmann, Adolf. NEW PATHS IN BIOLOGY. New York: Harper & Row, 1964.
Holistic biology.

Ramsey, Ian T. BIOLOGY AND PERSONALITY; FRONTIER PROBLEMS IN SCIENCE, PHILOSOPHY AND RELIGION. Oxford: Basil Blackwell, 1965.
Essays on the nature of life by Charles Raven, Sir Alister Hardy, J. R. Smythies, Ian Ramsey, etc.

Roberts, Catherine. THE SCIENTIFIC CONSCIENCE: REFLECTIONS ON THE MODERN BIOLOGIST AND HUMANISM. New York: Braziller, 1967.

Ruesch, J. and W. Kies. NONVERBAL COMMUNICATION. Berkeley: University of California Press, 1956.
Recognition of necessity of attending to other phenomena than language.

Russell, E. S. THE DIRECTIVENESS OF ORGANIC ACTIVITIES. Cambridge: Cambridge University Press, 1945.
Goal-directed activity in organisms.

Sinnott, Edmund Ware. THE BIOLOGY OF THE SPIRIT. New York: Viking Press, 1955.
Concept of purpose in biological development.

Sinnott, Edmund Ware. CELL AND PSYCHE; THE BIOLOGY OF PURPOSE. Oxford: Oxford University Press, 1961.

Uexküll, Jakob von. "A stroll through the worlds of animals and men" in INSTINCTIVE BEHAVIOR, Claire H. Schiller, ed., New York: International Universities Press, 1957.
Role of instinct in animal behavior; the idea of the "umwelt"—the experiential world.

Waddington, C. H. NEW PATTERNS IN GENETICS AND DEVELOPMENT. New York: Columbia University Press, 1962.

Whitehead, Alfred North. Process and reality; AN ESSAY IN COSMOLOGY. New York: Macmillan, 1929.
Whitehead's philosophy of the organism; "dynamic patterns of interdependent events."

Whyte, Lancelot Law, A. G. and D. Wilson, eds. HIERARCHICAL STRUCTURES. New York: American Elsevier, 1969.
Papers of a symposium designed to explore the questions of wholeness, unity, order and structure.

Whyte, Lancelot Law. THE UNCONSCIOUS BEFORE FREUD. New York: Basic Books, 1960.
Development of the concept of the unconscious.

Whyte, Lancelot Law. THE UNIVERSE OF EXPERIENCE. New York: Harper & Row, 1973.
The organizing process; towards a morphic science.

Woodjer, J. H. BIOLOGICAL PRINCIPLES. London: Kegan Paul, 1929.
Propounds a philosophy of process and the hierarchical principle of organization in biology.

Young, Arthur. THE GEOMETRY OF MEANING. New York: Delacorte Press, 1976.
Implications of an organicist science.

B. Brain/Mind

BRAIN/MIND BULLETIN. Marilyn Ferguson, ed. Los Angeles: bimonthly.
News and views on latest research.

Eccles, Sir John C. THE NEUROPHYSIOLOGICAL BASIS OF MIND. Oxford: Oxford University Press, 1953.
Relation of brain to mind; how meaning is translated from neural codes.

Penfield, Wilder. THE MYSTERY OF THE MIND. Princeton: Princeton University Press, 1975.
The latest in brain research; are mind and brain two separate entities?

Pribram, Karl H. LANGUAGES OF THE BRAIN; EXPERIMENTAL PARADOXES AND PRINCIPLES IN NEUROPSYCHOLOGY. Englewood Cliffs, N.Y.: Prentice-Hall, 1971.
Mind and brain.

Pugh, George Edgin. THE BIOLOGICAL ORIGIN OF HUMAN VALUES. New York: Basic Books, 1977.
Systems theory as unifying framework connecting human values and brain structure; "psychobiology."

Simeons, A. T. W. MAN'S PRESUMPTUOUS BRAIN. New York: Dutton, 1961.
Brain dominance over instinctual response; evolution of forebrain toward an increasing disconnection from the rest of organism in humans.

C. Evolution

Hardy, Sir Alister. BIOLOGY OF GOD: A SCIENTIST'S STUDY OF MAN THE RELIGIOUS ANIMAL. London: J. Cape, 1975.
Contends that consciousness can direct evolution.

Hardy, Sir Alister. THE LIVING STREAM: A RESTATEMENT OF EVOLUTION THEORY AND ITS RELATION TO THE SPIRIT OF MAN. London: Collins, 1965.
Along with the DNA inheritance there is "the psychic pool of experience" which influences the organism's evolution.

Koestler, Arthur. CASE OF THE MIDWIFE TOAD. New York: Random House, 1973.
Anomalies of the theories of genetic inheritance.

Morgan, C. Lloyd. EMERGENT EVOLUTION. London: Williams and Norgate, 1923.
Early proponent of theory that the organism influences its own evolution.

Roberts, Catherine. "The Three Faces of Humanism." Occasional Paper. Oxford: The Farmington Institute, 1975.
A former biologist argues for a new scientific ethic based on a "divine-centered" vision of purposeful evolution.

Spilsbury, Richard. PROVIDENCE LOST: A CRITIQUE OF DARWINISM. London: Oxford University Press, 1974.

Whyte, Lancelot Law. INTERNAL FACTORS IN EVOLUTION. London: Tavistock, 1965.
An internal selection process exists based on "the system's capacity for coordinated activity."

D. Form and Nature

Arber, Agnes. THE NATURAL PHILOSOPHY OF PLANT FORM. Cambridge: Cambridge University Press, 1950.
Goethean botany, by an eminent botanist.

Brown, G. Spencer. LAWS OF FORM. London: Allen & Unwin, 1969.

Feininger, Andreas. THE ANATOMY OF NATURE: HOW FUNCTION SHAPES THE FORM AND DESIGN OF ANIMATE AND INANIMATE STRUCTURES THROUGHOUT THE UNIVERSE. New York: Crown, 1956.
An artist looks at natural form.

Kepes, Gyorgy. THE NEW LANDSCAPE IN ART AND SCIENCE. Chicago: Paul Theobald, 1956.
Art and science.

Portmann, Adolf. ANIMAL FORMS AND PATTERNS: A STUDY OF THE APPEARANCE OF ANIMALS. London: Faber, 1952.
The Gestalt as organic form: "The idea that a complex whole contains more than a mere aggregation of parts.... There is more in harmony than the notes forming the chord." (From the translator's preface.)

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